

# C.A.T.S. Tuner PCM 85 Parameter List

## (ECM Configuration File Version AR)

### ECM Switch Parameters

Auto / Manual Transmission (X = Manual)  
Electronic Governor Option (X = Enabled)  
EGR RPM/MAP Select (X=RPM)  
Governor Diagnostic (Error 31)  
Fuel Pump Relay Diagnostic (Error 54)  
O2 Sensor Diagnostic (Error 13)  
Coolant Temp. High (Error 14)  
Coolant Temp. Low (Error 15)  
MAP Sensor High Diagnostic (Error 33)  
ESC Diagnostic (Error 43)  
MAP Sensor Low Diagnostic (Error 34)  
EST Montior Diagnostic (Error 42)  
TPS Sensor High Diagnostic (Error 21)  
Vehicle Speed Diagnostic (Error 24)  
TPS Sensor Low Diagnostic (Error 22)  
Trans. Temp High Diag. (Error 58)  
ADU Diagnostic (Error 55)  
Trans. Press Switch Diag. (Error 28)  
High Ratio Diagnostic (Error 87)  
Trans. Temp Low Diag. (Error 59)  
Force Motor Current Diag. (Error 73)  
Overdrive Diagnostic (Error 68)  
Quad Driver #1 Shift B Diag (Error 81)  
TCC On Diagnostic (Error 69)  
Engine Speed Low Diag. (Error 71)  
System Voltage High Diag. (Error 53)  
Output Speed Loss Diag. (Error 72)  
Quad Driver #1 Shift A Diag (Error 82)  
Input Speed Sensor Diag. (Error 74)  
Transmission Hot Diag. (Error 79)  
Quad Driver #1 Diagnostic (Error 83)  
O2 Lean Diagnostic (Error 44)  
O2 Rich Diagnostic (Error 45)  
EGR Diagnostic (Error 32)  
Undefined Ratio Diag. (Error 85)  
Low Ratio Diagnostic (Error 86)  
Max Adapt Long Shift Diag. (Error 89)

### ECM Constants

Fuel Cut Off Engine Speed  
Fuel Resume Engine Speed  
Initial Spark Advance  
Main Spark Bias  
Cool Compensation Spark Advance Bias  
Maximum Spark Advance  
Maximum Spark Retard  
Min. Cool. Temp. to Enable Spark Retard  
Bypass WOT Delay, (Eng Speed)  
Wide Open Throttle Delay  
Base Pulse Width Constant  
Number of Cylinders  
Decel Enleanment Delta MAP Factor  
EGR On, (TPS)  
EGR Off, (TPS)  
EGR On (Eng Speed)  
EGR Off, (Eng. Speed)  
Low MAP EGR On

Low MAP EGR Off  
EGR Off, (MAP)  
EGR On, (MAP)  
Min. Coolant Temp. To Enable EGR  
Maximum RPM To Enable Block Learn  
Minimum MAP To Enable Block Learn  
Maximum MAP To Enable Block Learn  
Force Open Loop Fuel For Idle, (Speed)  
Force Open Loop Fuel For Idle, (TPS)  
Open Loop Idle Fuel Enable RPM Threshold  
Open Loop Idle Fuel Disable RPM Thresh.  
Open Loop Idle Fuel Enable Delay Timer  
Max. AFR For 1st Time Open Loop Idle  
Maximum Open Loop Idle AFR  
Min. Coolant to Enable Closed Loop Fuel  
Closed Lp Timer Enable (Cold/Warm Eng.)  
Closed Lp Enable Timer, (Cold Eng.)  
Closed Lp Enable Timer (Warm Eng.)  
Accel 'Pump Shot' For IAC At Idle  
Minimum BLM Value  
Maximum BLM Value  
Minimum Integrator Value  
Maximum Integrator Value  
Minimum BPW  
Async To Sync Fuel MAP Threshold  
Async To Sync Fuel RPM Threshold  
Sync To Async Fuel MAP Threshold  
Sync To Async Fuel RPM Threshold  
Async-->Sync BPW (Min)  
Maximum Async Injector Pulse Width  
Minimum Async Injector Pulse Width  
Delta O2 Volt Window for Fast Rich/Lean  
Error Thresh. for Integration Correction  
Rich O2 Sensor Voltage At Idle  
Lean O2 Sensor Voltage At Idle  
Mean R/L O2 Sensor Voltage At Idle  
Proportional Gain Flow Factor at Idle  
Proportional Duration Offset at Idle  
Integrator Delay Bias at Idle  
Positive Error Scale Factor  
Error Correction Factor at Idle  
IAC Park To Run Position Decay Delay  
%TPS Threshold For Closed Throttle  
Time Treshold To Enable IAC Kickdown  
Idle RPM Adder - A/C On  
IAC Position Correction in P/N  
Desired Governor RPM  
Low Governor Disable RPM  
Desired Governor Vehicle Speed  
Governor Disable Speed Hysteresis  
Governor Light On RPM Threshold  
Governor Overspeed Fuel Cutoff Speed  
Governor Overspeed Fuel Resume Speed  
Mechanical 1st Gear Ratio  
Mechanical 2nd Gear Ratio  
Mechanical 3rd Gear Ratio  
Kickdown Mode Enable %TPS Threshold  
Kickdown Mode Disable %TPS Threshold  
Power Steering Stall Enable RPM Thresh.  
Power Steering Stall Disable RPM Thresh.  
TCC Enable Coolant Temp. Threshold  
TCC Disable Coolant Temp. Threshold  
TCC Enable Transmission Temp. Threshold  
TCC Disable Transmission Temp. Threshold  
Neg. Delta %TPS TCC Release Threshold  
Delta %TPS TCC Off Time  
Min TPS to Enable TCC - Low MPH  
Min TPS to Enable TCC - High MPH  
TCC Disable TPS Threshold - Low MPH  
TCC Disable TPS Threshold - High MPH

TCC Disable Slip Threshold  
TCC Re-Enable Slip Threshold  
Low-High MPH Thresh. for TCC TPS Limits  
High-Low MPH Thresh. for TCC TPS Limits  
Lower Adaptive Learn Trans Temp Thresh.  
Upper Adaptive Learn Trans Temp. Thresh.  
MALF Error 68 Enable Trans Slip RPM  
PROM ID  
DFCO Enable RPM  
DFCO Disable RPM

## Tables

ECM Switch Table  
ECM Constant Table  
Main Spark Advance Vs. Load Vs. RPM  
Cool Compensation Spark Advance Vs. Load  
Power Enrichment Spark Vs. RPM  
Start Up Spark Advance Vs. Coolant Temp.  
Startup Spark Advance Decay Delay Vs. Coolant Temp  
Startup Spark Advance Decay Factor Vs. Cool. Temp.  
Knock Attack Rate Vs. RPM (Deg/msec)  
Knock Recovery Rate Vs. RPM (%/sec)  
Maximim Knock Retard Vs. RPM (in WOT)  
Maximim Knock Retard Vs. MAP  
EGR Spark Advance Correction  
Volumetric Efficiency Vs. RPM Vs. Load  
Base Pulse Constant Vs. % Avail. EGR Vs. Air Flow  
Desired % EVRV Vs. MAP Vs. RPM  
% Available EGR Vs. Vacuum Vs. EVRV % Duty Cycle  
TPS Threshold Vs. RPM For WOT  
TPS Threshold Vs. RPM For WOT, (Fast)  
WOT Air Fuel Ratio Vs. RPM  
Pump Shot Vs. Differential TPS  
Pump Shot Vs. Differential MAP  
Open Loop Air Fuel Ratio Vs. Coolant Temp.  
Choke Enrichment Factor Vs. Coolant Temp.  
Choke AFR Decay Multiplier Vs. Coolant Temp.  
AFR Time Out Decay Rate Vs. Air Flow  
Crank Air Fuel Ratio Vs. Coolant Temp.  
Decel Enleanment Coolant Factor Vs. Coolant Temp.  
IAC Steps Vs Coolant Temp.  
Target Idle RPM Vs. Coolant Temp.  
IAC Motor Reset Position Vs. Baro.  
IAC Motor Power Steering Stall Offset Vs. Baro.  
Integrator Delay Vs. Air Flow  
Mean Rich/Lean O2 Voltage Threshold Vs. Air Flow  
Rich O2 Voltage Threshold Vs. Air Flow  
Lean O2 Voltage Threshold Vs. Air Flow  
Slow O2 Filter Time Constant Vs. Air Flow  
Proportional Counts Vs. Slow Filtered O2 Error  
Prop. Term Duration Vs. Slow Filtered O2 Error  
Proportional Duration Offset Vs. Air Flow  
Proportional Gain Flow Factor Vs. Air Flow  
Integrator Delay Multiplier Vs. Slow O2 Error  
Main Line Pressure, 0 - 64 MPH  
Main Line Pressure, 64 - 128 MPH  
Normal Mode Upshift/Downshift Vs. MPH Vs. TPS  
Kickdown Up/Down Shift Points  
Performance Mode Upshift/Downshift Vs. MPH Vs. TPS  
Torgue Converter Release MPH Vs. TPS  
Torgue Converter Engage MPH Vs. TPS  
TCC Apply Operating Point Vs. %TPS  
TCC Release Operating Point Vs. %TPS  
Minimum TCC Duty Cycle Vs. Torque Pressure  
Line Pressure Modifier Vs. Gear Vs. TPS  
Down Shift Pressure Modifier 2 -> 1 Vs. MPH  
Down Shift Pressure Modifier 3 -> 2 Vs. MPH

Down Shift Pressure Modifier 4 -> 3 Vs. MPH  
Line Pressure Modifier In WOT Vs. RPM  
Desired Shift Time Vs. %TPS  
Adaptive Pressure Modifier Vs. Shift Time Error  
Gear Ratio Limits For Error Diagnostics 85, 86 & 87